

What is claimed is:

SUB A17

1. A method of configuring a directory server comprising a plurality of entries, the method comprising the steps of:
 - 5 creating a CoS scheme, wherein the CoS scheme comprises a CoS Definition entry, which includes a CoS specifier and a list of attributes, whereby a first target entry within scope of the CoS scheme obtains values for attributes provided in the CoS Definition entry by using an attribute with a distinguishing name (DN) value contained within the first target entry.
- 10 2. The method of claim 1, wherein the DN points to a second target entry which is a valid entry.
3. The method of claim 1, wherein the DN points to a second target entry which is a valid entry and the first target entry uses the second target entry as a template.
- 15 4. The method of claim 1, wherein the value of the CoS specifier in the CoS Definition entry appears in a target entry as a first attribute type.
- 20 5. A method of providing an attribute-value pair stored in a directory system and shared by a plurality of target entries in the directory system, the method comprising the steps of:
 - creating an indirect CoS scheme;
 - receiving a request for an attribute-value pair associated with a first target entry;
 - 25 searching in a list of attribute-value pairs which are associated with template entries that are in turn associated with CoS Definition entries for instances of attribute-value pairs that match the requested attribute type, said searching step resulting in a matched list of attribute-value pairs;

applying at least one of a set of constraints to the matched list of attribute-value pairs; and

returning the attribute-value pair that satisfied the applied constraint(s).

5 6. The method as in claim 5, wherein the set of constraints includes CoS scope.

7. The method as in claim 5, wherein the set of constraints includes determining if a CoS specifier associated with the matched attribute-value pair matches a valid second target entry.

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8. The method as in claim 7, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.

9. An apparatus comprising:

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a directory server comprising:

a component to configure and store a plurality of target entries; and

a component to create a CoS scheme, wherein the CoS scheme comprises

a CoS Definition entry, which includes a CoS specifier and a list of

attributes, whereby a first target entry within scope of the CoS scheme obtains values for

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attributes provided in the CoS Definition entry by using an attribute with a distinguishing name (DN) value contained within the first target entry.

10. The apparatus of claim 9, wherein the DN points to a second target entry which is a valid entry.

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11. The apparatus of claim 9, wherein the DN points to a second target entry which is a valid entry and the first target entry uses the second target entry as a template.

12. The method of claim 9, wherein the value of the CoS specifier in the CoS Definition entry appears in a target entry as a first attribute type.

13. An apparatus comprising:

5 a directory server comprising:

a component configured to store a plurality of target entries;

a component adapted to configure an attribute-value pair that could be shared by at least a subset of the plurality of target entries using an indirect CoS scheme;

10 a component configured to receive a request for an attribute-value pair associated with a first target entry;

a component configured to search in a list of attribute-value pairs which are associated with template entries that are in turn associated with CoS Definition entries for instances of attribute-value pairs that match the requested attribute type, said searching step resulting in a matched list of attribute-value pairs;

15 a component configured to apply at least one of a set of constraints to the matched list of attribute-value pairs to result in a selected attribute-value pair; and

a component configured to return the selected attribute-value pair.

14. The method as in claim 13, wherein the set of constraints includes determining if
20 a CoS specifier associated with the matched attribute-value pair matches a valid second target entry.

15. The method as in claim 13, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.

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16. The method as in claim 13, wherein the matched second target entry contains an attribute provided by the indirect CoS scheme.